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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,848

05/12/2006

Blaise Roulcau

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7590
Longacre & White
6550 Rock Spring Drive
Suite 240
Bethesda, MD 20817

12/26/2007

EXAMINER

DESAI, NAISHADH N

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

12/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,848

Applicant(s)

ROULEAU ET AL.

Examiner

Naishadh N. Desai

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/12/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claims 15 and 16 are objected to because of the following informalities: Claims 15 and 16 are duplicates of each other. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear to examiner what applicant is defining "...characterised in that *it* includes..." as. "*It*" can refer to the web, metallic insert, rotor, etc. Appropriate correction and clarification is requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1- 9 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vasilescu et al (US 7168923) in view of Morikaku et al (US 2003/0042813).

3. As per (Original) independent claim 1:

A fan for an alternator-starter, fixed on a rotor (4), with magnetic poles, of the alternator-starter, the fan comprising (abstract of Vasilescu et al):

- a metallic insert (13) whereby the fan is fixed on the rotor [abstract of Vasilescu et al],

and

- a radial web (17) and at least one fan blade (12), which are moulded in plastics material on the metallic insert [abstract of Vasilescu et al],

characterised in that it includes a magnetic target (14) which, in association with at least one sensor, ensures magnetic following of the rotation of the rotor.

Vasilescu et al teaches the device as claimed. Vasilescu et al do not teach the use of a magnetic target and sensor. Morikaku et al teaches the use of a target [Fig 17,122 and Fig 18b,122] and sensor [Fig 17,123 and Fig 19,123] by using a magnetic circuit to detect rotation of the rotor [Fig 19,125]. It would have been obvious to a person having

ordinary skills in the art at the time the invention was made to modify the device of Vasilescu et al to have the rotor positioning devices of Morikaku et al. The motivation to do so would be that it would allow for detection of an angular position of a rotor with high precision[paragraph [0015] of Morikaku et al].

4. As per (Original) dependent claim 2:

A fan according to Claim 1, characterised in that the magnetic target (14) is moulded in situ on the metallic insert (13).

In regards to claim 2, the method of making limitations are not germane to the patentability of the apparatus and have not been given patentable weight. The patentability of the product does not depend on its method of production. If the product in the product by process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966(Fed. Cir. 1985). In this instance it is obvious that molding the magnetic target in situ on the metallic insert can be done together, as Morikaku et al teaches molding of different parts [paragraphs [0059-61].

5. As per (Original) dependent claim 3:

A fan according to Claim 1, characterised in that the magnetic target (14) is adhesively bonded on the metallic insert (13) [paragraph [0008] of Morikaku et al].

6. As per (Currently amended) dependent claim 4:

A fan according to ~~any one of Claims 1 to 3~~ claim 1, characterised in that the magnetic target (14) is mounted on a tubular portion (20) of the metallic insert (13) [Fig 18B of Morikaku et al].

7. As per (Original) dependent claim 5:

A fan according to Claim 4, characterised in that the magnetic target (14) is mounted on an internal wall (24) of the tubular portion (20) [Fig 18B Morikaku et al].

8. As per (Original) dependent claim 6:

A fan according to Claim 4, characterised in that the magnetic target (14) is mounted on the external wall (25) of the tubular portion (20).

Vasilescu et al and Morikaku et al disclose the claimed invention in regards to claims 4-6 above except for mounting the magnetic target in various locations. It would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the magnetic target on a tubular portion of the metallic insert or the internal or external walls thereof, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japiske*, 86 USPQ 70.

9. As per (Original) dependent claim 7:

A fan according to Claim 1, characterised in that the magnetic target comprises a magnetic material combined with the plastics material of the web and/or fan blades.

Vasilescu et al and Morikaku et al disclose the claimed invention except for explicitly mentioning that the magnetic target is made of combination of magnetic material and plastic. Morikaku et al does teach the use of molding plastic with other elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the magnetic target of a combination of magnetic material and plastic, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The motivation to combine the magnetic material with plastic would be to reduce weight and cost of the device.

10. As per (Original) dependent claim 8:

A fan according to Claim 1, characterised in that the magnetic material of the target comprises ferrites or rare earths [paragraph [0008] of Morikaku et al].

11. As per (Original) dependent claim 9:

A fan according to Claim 1, characterised in that the magnetic material of the target is a magnetic plastic material.

Vasilescu et al and Morikaku et al disclose the claimed invention except for explicitly mentioning that the magnetic target is made of combination of magnetic material and plastic. Morikaku et al does teach the use of molding plastic with other elements [paragraphs [0059-61]]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the magnetic target of a combination of

magnetic material and plastic, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The motivation to combine the magnetic material with plastic would be to reduce weight and cost of the device.

12. As per (Original) dependent claim 14:

A fan according to Claim 1, characterised in that the blades are of complex form (Fig 5 of Vasilescu et al).

13. As per (Original) dependent claims 15 and 16:

A fan according to Claim 1, characterised in that the fan blades are spaced apart over at least two stages (Col 7 ll 4-6 and Figs 6-8 of Vasilescu et al).

14. As per (Original) dependent claim 17:

A fan according to Claim 1, characterised in that one group of blades is of plastics material moulded in situ on the metallic insert, and in that the remainder of the blades are of metal projecting integrally from the metallic insert.

Vasilescu et al and Morikaku et al disclose the claimed invention except for explicitly mentioning that the blades are made of a combination of magnetic material and plastic. Morikaku et al does teach the use of molding plastic with other elements [paragraphs [0059-61]]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the fan blades of a combination of metal and plastic,

since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The motivation to combine metal with plastic would be to reduce weight and cost of the device.

15. As per (NEW) dependent claim 18:

A fan according to claim 2, characterised in that the magnetic target (14) is mounted on a tubular portion (20) of the metallic insert (13) [Fig 18B Morikaku et al].

16. As per (NEW) dependent claim 19:

A fan according to claim 3, characterised in that the magnetic target (14) is mounted on a tubular portion (20) of the metallic insert (13) [Fig 18B Morikaku et al].

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vasilescu et al (US 7168923) and Morikaku et al (US 2003/0042813) further in view of Bright (US 1920309)

17. As per (Original) dependent claim 10:

A fan according to Claim 1, characterised in that it includes a crown element (19) of plastics material constituting a shroud ring, with at least some of the blades of the fan extending from the web to the crown element.

Vasilescu et al teaches the device as claimed. Vasilescu et al do not teach the use of a magnetic target and sensor. Morikaku et al teaches the use of a target and sensor.

Morikaku et al do not teach the use of a shroud ring. Bright teaches the use of shroud rings [page 3 ll 58-70 and Fig 1] and for the blades to extend from the web to the shroud ring. It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Vasilescu et al and Morikaku et al to have the shroud ring of Bright. The motivation to do so would be that it would improve airflow and cooling of the device [page 1 ll 60-110 of Bright].

18. As per (Original) dependent claim 11:

A fan according to Claim 10, characterised in that the magnetic target (14) is mounted on the cover (19).

19. As per (Original) dependent claim 12:

A fan according to Claim 10, characterised in that the magnetic target (14) is mounted against the inner circumference of the cover (19).

Vasilescu et al and Morikaku et al disclose the claimed invention in regards to claims 11 and 12 above except for mounting the magnetic target in various locations. It would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the magnetic target on the cover or inner circumference thereof, since it has been held that rearranging parts of an invention involves only routine skill in the art.

In re Japiske, 86 USPQ 70.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vasilescu et al (US 7168923) and Morikaku et al (US 2003/0042813) further in view of Gold (US 4588911)

20. As per (Original) dependent claim 13:

A fan according to Claim 1, characterised in that it constitutes a powder pot for the connecting wires of the rotor.

Vasilescu et al teaches the device as claimed. Vasilescu et al do not teach the use of a magnetic target and sensor. Morikaku et al teaches the use of a target and sensor. Morikaku et al do not teach the use of an epoxy resin to attach the rotor wires. Gold teaches the use of epoxy resin [Col 2 ll 40-53]. It would have been obvious to a person having ordinary skills in the art at the time the invention was made to use the epoxy resin disclosed by Gold to attach the rotor wires of Vasilescu et al and Morikaku et al's device. The motivation to do so would be that it would secure the wires and provide proper orientation and interconnection between parts [Col 1 ll 33-39 of Gold]

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for details.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naishadh N. Desai whose telephone number is (571) 270-3038. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Naishadh N Desai
Patent Examiner

A handwritten signature in black ink, consisting of a stylized 'N' followed by a large, sweeping loop that ends in a small hook.